UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,964	09/16/2005	Haruhisa Toyoda	20239/0203036-US0	8313

7278 7590 12/04/2008

DARBY & DARBY P.C.
P.O. BOX 770
Church Street Station
New York, NY 10008-0770

EXAMINER	
SHEEHAN, JOHN P	
ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
12/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/549,964	TOYODA ET AL.	
	Examiner	Art Unit	
	John P. Sheehan	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,8,11 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-5, 8 11 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 17, 2008 has been entered.

Claim Interpretation

2. Claims 1, 3 to 5, 8 and 11 recite, "crystals having an average size…of at least 30 nm" (for example, claim 1, lines 4 and 5, emphasis added by the Examiner). In view of the fact that these claims recite a minimum crystal size with no upper limit, these claims encompass any crystal size of 30 nm or greater, for example 50 nm,…50 microns, 150 microns, 200 microns, etc.

3. Claim 1, recites, "said metal magnetic powder including particles…20 microns" (emphasis added by the Examiner). In view of the definition of the open terminology "including", used in the claims, applicants claims are considered to be open to any

additional powder particles in any amount having any non-claimed crystal size and crystal grain size;

> The transitional term “comprising”, which is synonymous with “including,” “containing,” or “characterized by,” is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., >*Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004)

See MPEP 2111.03. Thus, the claims are not limited to powders having the recited crystal characteristics, but rather the claims encompass powders containing some powder, even in a very minor amount, that possess the recited crystal size and crystal grain size. In view of the use of the plural, "particles", the claims require the presence of only 2 particles having the recited crystal characteristics.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 3 to 5, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. Claims 1, 3 to 5, 8 and 11 recite, “crystals having an average size…of at least 30 nm” (for example, claim 1, lines 4 and 5, emphasis added by the Examiner). In view of the fact that these claims recite a minimum crystal size

with no upper limit, these claims encompass any crystal size of 30 nm or greater, for example 50 nm,...50 microns, 150 microns, 200 microns, etc. On the other hand, claims 1, 3 to 5, 8 and 11 recite, crystal grains "having an average size, of between 10 and 20 microns" (for example, claim 1, the last line, emphasis added by the Examiner). Thus, the crystal size and the crystal grain size limitations are inconsistent in that the recited upper limit regarding the crystal size exceeds the claimed upper limit of the crystal grain size. In view of this inconsistency, it is not clear what crystal characteristics are encompassed or not encompassed by the instant claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3 to 5, 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukada et al. (Tsukada '636, US Patent No. 5,800,636, cited by the Examiner).

Tsukada '636 teaches a soft magnetic iron powder with a particle size of 75 to 200 microns (column 6, lines 26 to 32) that is encompassed by the claims. Tsukada '636 teaches that the disclosed iron powder is used to make cores (column 2, lines 30 to 36) as recited in applicants' claim 5. Tsukada '636 teaches that the disclosed iron

powder is coated with a binder and an insulator (column 2, lines 30 to 36, column 9, lines 60 to 65 and Example 1) as recited in each of claims 3 and 4. The binder taught by Tsukada '636 provides insulation as recited in claim 11 (column 9, lines 62 to 65). Tsukada '636's insulation/binder has a thickness of 50 to 160 nm (0.02 to 0.16 microns) which is encompassed by applicants' claim 11 (column 9, lines 61 and 62).

The claims and Tsukada '636 differ in that Tsukada '636 is silent with respect to the average crystal size and the average crystal grain size and thus does not limit the crystal size and crystal grain size of the disclosed metal powder.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious. As set forth above under the heading, "Claim Interpretation", the claims require the presence of only 2 particles having the recited crystal characteristics. Further, as set forth above in the rejection under 35 U.S.C. 112, the claims are inconsistent regarding the crystal size and the crystal gain size and thus it is not clear what is and what is not encompassed by the claims. In view of this, the claims do not necessarily distinguish over the powder taught by Tsukada '636.

Response to Arguments

8. Applicant's arguments filed September 17, 2008 have been fully considered but they are not persuasive.

Applicants' arguments regarding Tsukada '636 are not persuasive. As set forth above under the heading, "Claim Interpretation", the claims require the presence of only

2 particles having the recited crystal characteristics. Further, as set forth above in the rejection under 35 U.S.C. 112, the claims are inconsistent regarding the crystal size and the crystal gain size and thus it is not clear what is and what is not encompassed by the claims. In view of this, the claims do not necessarily distinguish over the powder taught by Tsukada ‘636.

Applicants’ arguments that Tsukada '636’s teaching that the heat treatment affects the grain size and that Tsukada '636 and applicants' heat treatments are not the same are not persuasive. Tsukada '636 teaches the consequences of employing heating temperatures below Tsukada '636’s disclosed range (column 8, lines 16 to 20). The teachings of a reference encompass all that is taught in a complete reading of the reference and are not limited to the preferred embodiments but rather include the nonpreferred embodiments and even embodiments that are unsatisfactory for the intended purpose;

> "All the disclosures in a reference must be evaluated for what they fairly teach one of ordinary skill in the art. ...this court...affirmed rejections based on art phrased in terms of a non-preferred embodiment or as being unsatisfactory for the intended purpose." In re Boe, 148 USPQ 507, 510.

Further,

> “The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain.” In re Heck, 216 USPQ 1038, 1039, also see, MPEP 2123.

In view of this, Tsukada '636 is considered to teach heating temperatures below Tsukada '636's disclosed preferred temperature range.

Applicants' argument that the "specification shows that the lower temperature limit used in the process does not affect the properties of the crystals and particles" (Remarks page 6, last paragraph) is not persuasive. Applicants' have not specifically pointed to any section or data to support the statement that, "specification shows that the lower temperature limit used in the process does not affect the properties of the its crystals and particles". Applicants' general reference to the data in the specification with no explanation of what facts or data applicants are relying on is not persuasive, In re Borkowski 184 USPQ 29. Further, if applicants are referring to the data set forth in Table 1 of the specification, it is the Examiner's position that the data in Table 1 is based on pure iron powder (specification, page 12, line 15) whereas the instant claims are not so limited but rather encompass any metal magnetic particles. Accordingly, the data set forth in Table 1 is not commensurate in scope to the claims and is not persuasive, MPEP 716.02(d).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Sheehan/
Primary Examiner, Art Unit 1793